

Claims

56. (original) An adhesive containing labelstock for use in adhesive labels which comprises

(A) a die-cuttable, biaxially oriented multilayer film comprising

(A-1) a base layer having an upper surface and a lower surface, and comprising polyethylene having a density of about 0.940 g/cm³ or less, a propylene polymer or copolymer, or mixtures thereof wherein the base layer is free of copolymers of ethylene with an ethylenically unsaturated carboxylic acid or ester, and

(A-2) a first skin layer of a thermoplastic polymer bonded to the upper surface of the base layer, wherein the tensile modulus of the multilayer film in the machine direction is greater than the tensile modulus in the cross direction, and the tensile modulus of the multilayer film in the cross direction is 150,000 psi or less, and

(B) an adhesive layer having an upper surface and a lower surface wherein the upper surface of the adhesive layer is adhesively joined to the lower surface of the base layer.

57. (original) The labelstock of claim 56 wherein the base layer comprises a propylene copolymer.

58. (original) The labelstock of claim 56 wherein the base layer comprises a propylene copolymer which is a copolymer of propylene and up to about 40% by weight of at least one α -olefin selected from ethylene and α -olefins containing from 4 to about 8 carbon atoms.

59. (original) The labelstock of claim 58 wherein the α -olefin is ethylene or 1-butene.

60. (original) The labelstock of claim 56 wherein the base layer is free of inert particulate filler.

61. (original) The labelstock of claim 56 wherein the base layer comprises polyethylene having a density of from about 0.890 to about 0.925 g/cm².

62. (original) The labelstock of claim 56 wherein the multilayer film (A) has been biaxially stretch-oriented and heat set.

63. (original) The labelstock of claim 56 wherein the multilayer film (A) has a Gurley stiffness in the machine direction of from about 10 to about 50.

64. (original) The labelstock of claim 56 wherein the stretch orientation of the multilayer film (A) in the machine direction is greater than the stretch orientation in the cross direction by at least about 20%.

65. (original) The labelstock of claim 56 wherein the multilayer film (A) has been stretched in the machine direction at a ratio in the range of from about 5:1 to about 10:1.

66. (original) The labelstock of claim 56 wherein the adhesive layer is a pressure-sensitive adhesive layer.

67. (original) The labelstock of claim 56 wherein the multilayer film (A) has been oriented in the machine direction at a stretch ratio of about 9:1 to about 10:1, and stretch oriented in the cross direction at a ratio of greater than 1:1 up to about 3:1.

68. (original) The labelstock of claim 67 wherein the stretch ratio in the cross direction is less than 2:1.

69. (original) A pressure-sensitive adhesive label die-cut from the labelstock of claim 56.

76. (original) The labelstock of claim 56 wherein the stretch orientation of the multilayer film (A) in the machine direction is greater than the stretch orientation in the cross direction by at least about 10%.

77. (original) The labelstock of claim 56 wherein the multilayer film (A) has a frictional energy of less than 120 g-cm.

78. (original) The labelstock of claim 56 wherein the multilayer film (A) has a frictional energy of less than 80 g-cm.

79. (original) The labelstock of claim 56 wherein the multilayer film has been stretched in the cross direction at a ratio of from greater than 1:1 to about 5:1.

80. (original) The labelstock of claim 56 wherein the overall thickness of the multilayer film is from about 1 to about 3.5 mils.

81. (original) The labelstock of claim 56 wherein the multilayer film has a haze of less than about 6%.

82. (original) The labelstock of claim 56 wherein the biaxially oriented multilayer film is prepared by simultaneous biaxial orientation.

83. (original) An adhesive containing labelstock for use in adhesive labels which comprises

(A) a die-cuttable, biaxially oriented multilayer film having an overall thickness of from about 1 mil to about 3.5 mils, and comprising

(A-1) a base layer having an upper surface and a lower surface, and comprising polyethylene having a density of about 0.940 g/cm³ or less, a propylene polymer or copolymer, or mixtures thereof wherein the base layer is free of copolymers of ethylene with an ethylenically unsaturated carboxylic acid or ester, and

(A-2) a first skin layer of a thermoplastic polymer bonded to the upper surface of the base layer, wherein the tensile modulus of the multilayer film in the machine direction is greater than the tensile modulus in the cross direction, and the tensile modulus of the multilayer film in the cross direction is 150,000 psi or less, and the biaxially oriented multilayer film has been oriented in the machine direction at a stretch ratio of from about 5:1 to about 10:1 and in the cross direction at a stretch ratio of from greater than 1:1 up to about 5:1; provided the stretch ratio in the cross direction is less than the ratio in the machine direction; and

(B) an adhesive layer having an upper surface and a lower surface wherein the upper surface of the adhesive layer is adhesively joined to the lower surface of the base layer.

84. (new) The labelstock of claim 83 wherein the stretch orientation of the multilayer film (A) in the machine direction is greater than the stretch orientation in the cross direction by at least about 20%.